CLAIMS:

1. A method of plating a substrate material, which when activated by laser light adsorbs seeding particles for an electroless plating process, comprising applying a strippable coating to a substrate surface to be plated; selectively illuminating the coated substrate surface with laser light to ablate a selected area of the strippable coating and to activate an underlying region of the substrate surface exposed by the ablation of the strippable coating; contacting the substrate surface with seeding particles for electroless plating, so that the seeding particles adhere preferentially to the activated region of the substrate surface; and electrolessly plating the substrate surface, whereby the seeded areas of the substrate surface are selectively plated.

2. A method according to claim 1, comprising removing the strippable coating after contacting the substrate surface with seeding particles but prior to electrolessly plating the substrate surface.

3. A method according to claim 1, comprising removing the strippable coating after electrolessly plating the substrate surface.

4. A method according to any one of claims 1 to 3, wherein the substrate material is an aromatic polymer and the strippable coating comprises a non-aromatic polymer.

Sub A1

5. A method according to any preceding claim, comprising using the same laser to ablate the strippable coating and to activate the substrate surface, and reducing the power of the laser for the activation of the substrate surface.

Sub A1

6. A method according to any preceding claim, comprising depositing further metal on the electrolessly plated region of the substrate.

7. A method according to claim 6, comprising depositing the further metal by electroless plating.

8. A method according to claim 6, comprising depositing the further metal by electroplating.

Sub A2

9. A method according to any preceding claim, comprising ablating the substrate material underlying the ablated area of the strippable coating to form a recess in the substrate material before activating the polymer surface.

10. A method according to claim 9, comprising fabricating fine-line circuitry by ablating channels in the substrate material and filling the channels with metal after electroless plating of the activated surfaces of the channels to form circuitry embedded in the substrate material.

Sub A3

11. A method according to any preceding claim, comprising using the laser to ablate the strippable coating, selectively activate the substrate surface and drill a landless via in the substrate material in the same step.

12 A method according to claim 11, wherein the landless via is non-circular.

13 A method according to claim 12, wherein the non-circular landless via is slot-shaped.

14 A method according to any preceding claim, comprising selectively plating non-planar features on the substrate surface.

15 A method according to any preceding claim, comprising forming an integrated resistor by selectively activating and plating a region between two circuit interconnects on the substrate surface.

16. A method according to claim 15, comprising plating the activated region with a nickel alloy to form the resistor.

17. A method according to any preceding claim used to re-map a wafer.

18. A substrate formed with circuitry which includes vias having a non-circular cross-section, thereby enabling the density of the substrate circuitry to be increased.

19. A substrate according to claim 18, including slot-shaped vias.

20. A method of re-mapping a wafer, comprising using a laser to re-configure an existing circuit pattern on a surface of the wafer.